

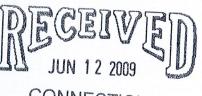
PETITION NO. 906

)7 Selden Street, Berlin, CT 06037
ortheast Utilities Service Company
∴O. Box 270
Hartford, CT 06141-0270
(860) 665-2036

John R. Morissette Manager – Transmission Siting and Permitting

June 12, 2009

Daniel F. Caruso, Chairman Connecticut Siting Council Ten Franklin Square New Britain, CT 06051 ORIGINAL



CONNECTICUT SITING COUNCIL

Dear Chairman Caruso:

Attached are an original and twenty (20) copies of a Petition on behalf of The Connecticut Light and Power Company ("CL&P") requesting a determination that no Certificate of Environmental Compatibility and Public Need is required for the Middletown Junction to Kleen Energy 345-kV line-section rebuild project in Middletown, Connecticut.

Also, attached is a check for the filing fee in the amount of \$500.

CL&P has notified the mayor of Middletown about the project described in this Petition and a copy of this Petition will be sent to him.

Sincerely, John R. Morssette

Attachment: Petition

cc: Sebastian N. Giuliano, Mayor of Middletown

## THE CONNECTICUT LIGHT AND POWER COMPANY

PETITION TO THE CONNECTICUT SITING COUNCIL
FOR A DECLARATORY RULING OF
NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT
FOR THE PROPOSED MODIFICATIONS OF AN EXISTING SINGLE-CIRCUIT 345-kV
TRANSMISSION LINE BETWEEN MIDDLETOWN JUNCTION IN MIDDLETOWN,
CONNECTICUT AND KLEEN ENERGY IN MIDDLETOWN, CONNECTICUT

- 1. Northeast Utilities Service Company (NUSCo) as agent for its corporate affiliate, The Connecticut Light and Power Company (CL&P), hereby petitions the Connecticut Siting Council (Council) for a Determination that no Certificate of Environmental Compatibility and Public Need is required pursuant to Section 16-50g et seq. of the Connecticut General Statutes for the proposed modifications on CL&P property (Property) described herein. NUSCo respectfully submits that no such Certificate is required because the proposed modifications would not have a substantial adverse environmental effect.
- 2. The proposed modifications would take place in Middletown, Connecticut on the Property and would consist of rebuilding a 0.8-mile section of 345-kV (kilovolt) transmission line located between the CL&P Middletown Junction (Junction) in Middletown, Connecticut and the transmission line interconnection to the Kleen Energy Systems, LLC (Kleen) generator. This section of 345-kV line is currently a part of the Manchester to Scovill Rock #353 circuit, and would become part of the Kleen to Scovill Rock #3533 circuit after the interconnection of the Kleen facility. The proposed modifications are required to maintain regional power transfers into and across Connecticut under emergency conditions with the Kleen facility operating near its rated capability.
- 3. The proposed modifications are shown on Attachment A: Typical Cross Section and Attachment B: Drawing No. 22705. The proposed modifications include:
  - a) Expanding the cleared area of the transmission corridor by 85 feet to the south.
  - b) Installing eight (8) new laminated-wood or weathering steel direct embedded H-frame structures.
  - c) Removing (8) H-frame wood-pole structures.

#### d) Road Access

CL&P plans to use existing access roads during construction. Access to the new structures would require the construction of six spurs from the existing access roads. The existing access roads would not require regrading or rehabilitation (see Attachment B).

#### e) Clearing

CL&P proposes to expand the cleared transmission corridor area by approximately 85 feet to the south of the existing transmission corridor. Clearing to six structures would be required for the six spurs from the existing road. A total of seven acres of CL&P property would be cleared of vegetation to facilitate the proposed work (see Attachment A).

#### f) Installation

Install eight (8) new laminated-wood or weathering steel direct-embedded H-frame twoand three-pole structures (#12091 - #12098) centered 85 feet south of the centerline of the existing 353 circuit (see Attachment A, Figure 1.2). The proposed modifications would also include:

- Installation of six 1590-kemil ACSS conductors in a two-conductor bundle configuration.
- Installation of one (1) 19#10 alumoweld shield wire.
- Installation of one (1) OPGW shield wire (fiber optic).
- Building access and construction pads at each new structure location to assemble and erect each structure (see Attachment B).
- Blasting may be required for the proper depth of pole embedment.

The proposed structure heights would be similar to the existing structures heights with topography dictating actual heights and locations.

#### g) Removal

The existing 345-kV transmission line section would be removed after it has been deenergized and would be disposed of in accordance with CL&P's best management practices for H-frame wood-pole structures disposal. See Attachment A. CL&P proposes to remove the structures prior to November 1, 2010, to honor an agreement with the Connecticut Department of Environmental Protection (DEP) regarding protection of the eastern box turtle.

All of the transmission line conductors and associated shield wires would be removed prior to removing the structures. The materials to be removed include:

- Two (2) 7#8 alumoweld shield wires.
- Three (3) 2156-kcmil ACSR conductors.
- Eight (8) wood-pole H-frame structures (#12091 #12098) and associated guy wires.

4. These proposed modifications would not have a substantial adverse environmental effect because:

#### a) Wetlands

CL&P does not anticipate the need to mat across any wetland areas or clear any wetland vegetation. CL&P would cross culverted wetlands. In addition, the proposed project would not require the construction of new access roads in wetlands.

#### b) Endangered Species Review

On September 8, 2008, CL&P requested a project area review for Rare, Threatened and Endangered Species (RTE) species listed in the DEP's Natural Diversity Database (NDDB). CL&P received the NDDB results from the DEP on September 23, 2008, followed by a September 25, 2008 letter from the DEP Division of Wildlife, indicating that the *Terrapene carolina carolina* (eastern box turtle) had been identified in the project area (see Attachment C).

Mitigation measures for the eastern box turtle, as mutually agreed upon by CL&P and the DEP, would be implemented prior to the start of work and would remain in effect during all clearing, construction, and rehabilitation activities. Mitigation measures would include training construction personnel in the proper identification of the eastern box turtle, the use of construction mats in sensitive areas, daily sweeps for the eastern box turtle prior to the start of work, and careful relocation of any eastern box turtle that is in any danger from construction activities.

#### c) Soil Erosion and Sediment Control

During this proposed project, CL&P would adhere to the soil erosion and sediment control practices as described in the 2002 Connecticut Guidelines for Soil and Erosion Control. Typical soil erosion and sediment control measures include hay bales and filter-fabric sediment control barriers. Soil erosion and sediment control measures would be inspected and maintained to ensure their integrity and effectiveness. Temporary erosion control measures would be maintained until construction of the new transmission line is complete, the old structures have been removed and restoration of the disturbed work sites is deemed successful.

#### d) Archaeological, Historical, Forests, and Parks

Cultural resources generally may include buried prehistoric or historic archaeological sites, standing historic structures, or thematically-related groups of structures. After requesting an opinion from the Connecticut State Historic Preservation Officer (SHPO), in a letter dated November 24, 2008 (see Attachment E), the SHPO recommended that CL&P hire a qualified professional to conduct an archaeological reconnaissance survey at the site. CL&P retained Heritage Consultants, LLC to conduct a Phase 1 Cultural Resources Reconnaissance Survey.

Heritage conducted the survey in December 2008 and submitted the results of their investigation in a report to the SHPO. The report describes two areas containing evidence of historic quarrying activities. CL&P agreed to avoid physical impacts to these two historic areas during all construction and road maintenance activities, and CL&P engineers agreed to relocate structure #12092 by 100 feet to the south of Quarry 2. CL&P received clearance from the SHPO in a letter dated December 31, 2008 (see Attachment E).

#### e) Magnetic Field (MF) Calculations

The new 345-kV line section would have the similar phase spacing and similar conductor clearances over ground, which would produce electric field levels at ground level and essentially matching those of the existing line section it would replace. The only change would be that the fields would move to the location of the replacement line section. Magnetic fields caused by the new 345-kV line section would similarly move to the location of the replacement line section and not change. This relocation is entirely within the Property, so there is no easement or defined right-of-way (see Attachment D).

Magnetic field calculations for the existing 345-kV line section were provided to the Council in 2002 by Kleen in Petition 549 for three example load levels, specifically 345 MVA, 520 MVA and 750 MVA.

Together with system through-flows on a summer peak-load day, the full output of the Kleen facility heading south to the Scovill Rock switching station can yield future peak line loadings of approximately 1,140 MVA (so 1,908 amperes) on the 345-kV line section between the Kleen facility and the Scovill Rock switching station, including the proposed 0.8-mile replacement line section. This loading is close to the summer normal rating of this line section. Also, the 2008 New England 15-GW load case, which is representative of a typical pre-Kleen (before the addition of the Kleen facility) use of this 345-kV line, corresponds to a 394 MVA (so 659 amperes) load on the line. CL&P is including magnetic field calculation profiles using these two line currents for the replacement line section. Other assumptions commonly used for these calculations include:

- a calculation height of one meter above ground over bare and level terrain,
- balanced transmission line currents, and
- typical mid-span conductor heights of 35 feet above ground.

The calculation results for the two load levels are depicted on Attachment D. In the upper left-hand corner of the graph, the magnetic field levels are listed for each of the two load levels at three specific locations, two of which represent locations that could be edges of a right-of-way if this line were located over private property rather than on the Property. The Property is undeveloped and there are no public or residential land uses adjacent to either the existing or the proposed replacement line section.

Location	Pre-Kleen (15 GW Case) Magnetic Field Level (mG)	Post-Kleen Magnetic Field Level (mG)
West Edge of ROW	32.11	92.96
Center of 353 Line	125.68	363.88
East Edge of ROW	32.11	92.96

- 5. CL&P proposes to commence this project in the summer of 2009 with completion by November 1, 2010.
- 6. Section 16-50k(a) of the Connecticut General Statutes indicates that a Certificate of Environmental Compatibility and Public Need is not needed for a proposed modification of a facility that the Council determines does not have a "substantial adverse environmental effect." Based on evaluation of the environmental effect of the proposed modifications to the transmission line, NUSCo respectfully submits that the modifications would not result in a substantial adverse effect on the environment or ecology, nor would they damage existing scenic, historical or recreational values. Accordingly, CL&P requests that the Council issue a declaratory ruling that the proposed modifications would have no substantial adverse environmental effect and, therefore, that no Certificate is required.
- 7. Communications regarding this Petition for a Declaratory Ruling should be directed to:

Mr. John Morissette Manager, Transmission Siting and Permitting Northeast Utilities Service Company PO Box 270

Hartford, CT 06141-0270 Telephone: (860) 665-2036

By:

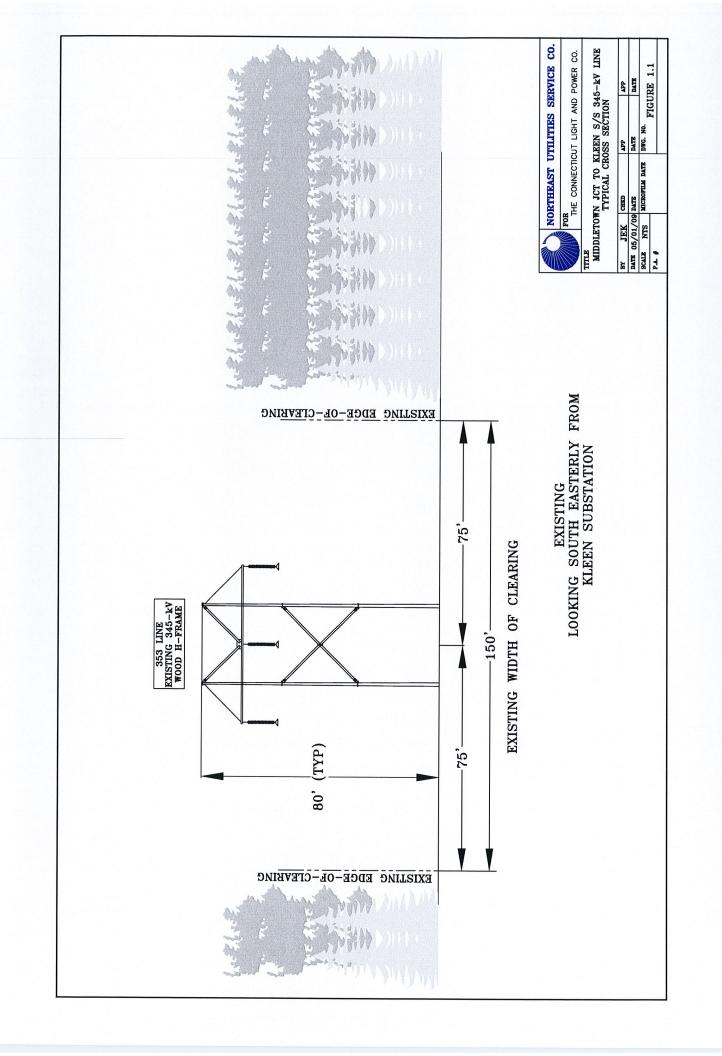
John Morissette

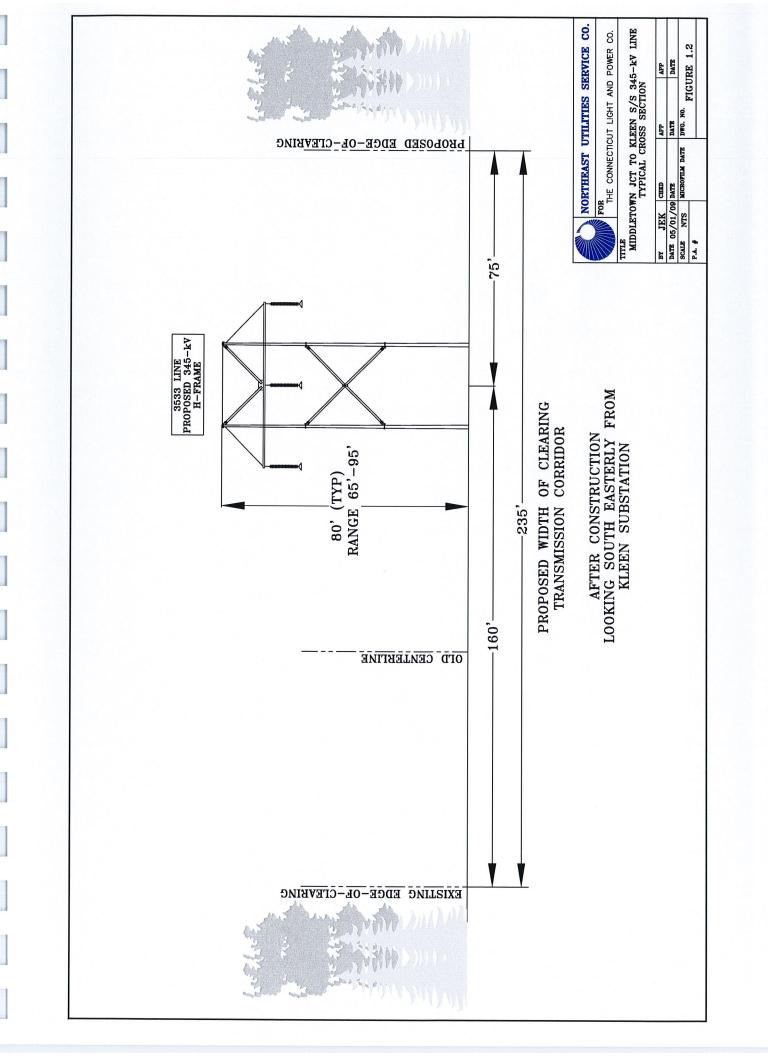
Manager – Transmission Siting and Permitting

#### Attachments:

- Attachment A: Typical Cross Section Figures 1.1-1.2
- Attachment B: Drawing No. 22705 (Index and Segments 1-2)
- Attachment C: Connecticut Department of Environmental Protection Correspondences
- Attachment D: Magnetic Field Calculations
- Attachment E: Connecticut State Historic Preservation

ATTACHMENT A

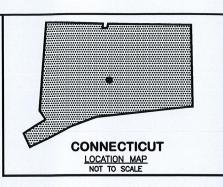


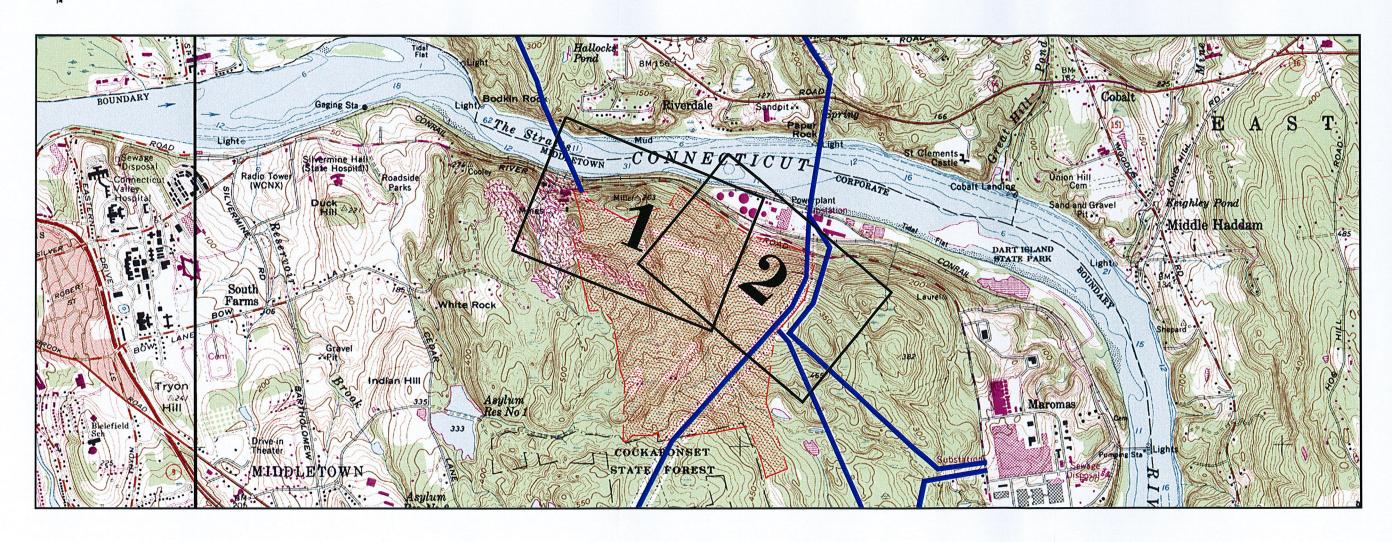


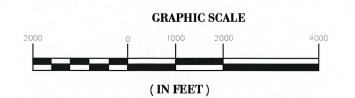
ATTACHMENT B



# 353 LINE REBUILD SECTION: MIDDLETOWN JUNCTION TO FUTURE KLEEN ENERGY SUBSTATION MIDDLETOWN, CT.







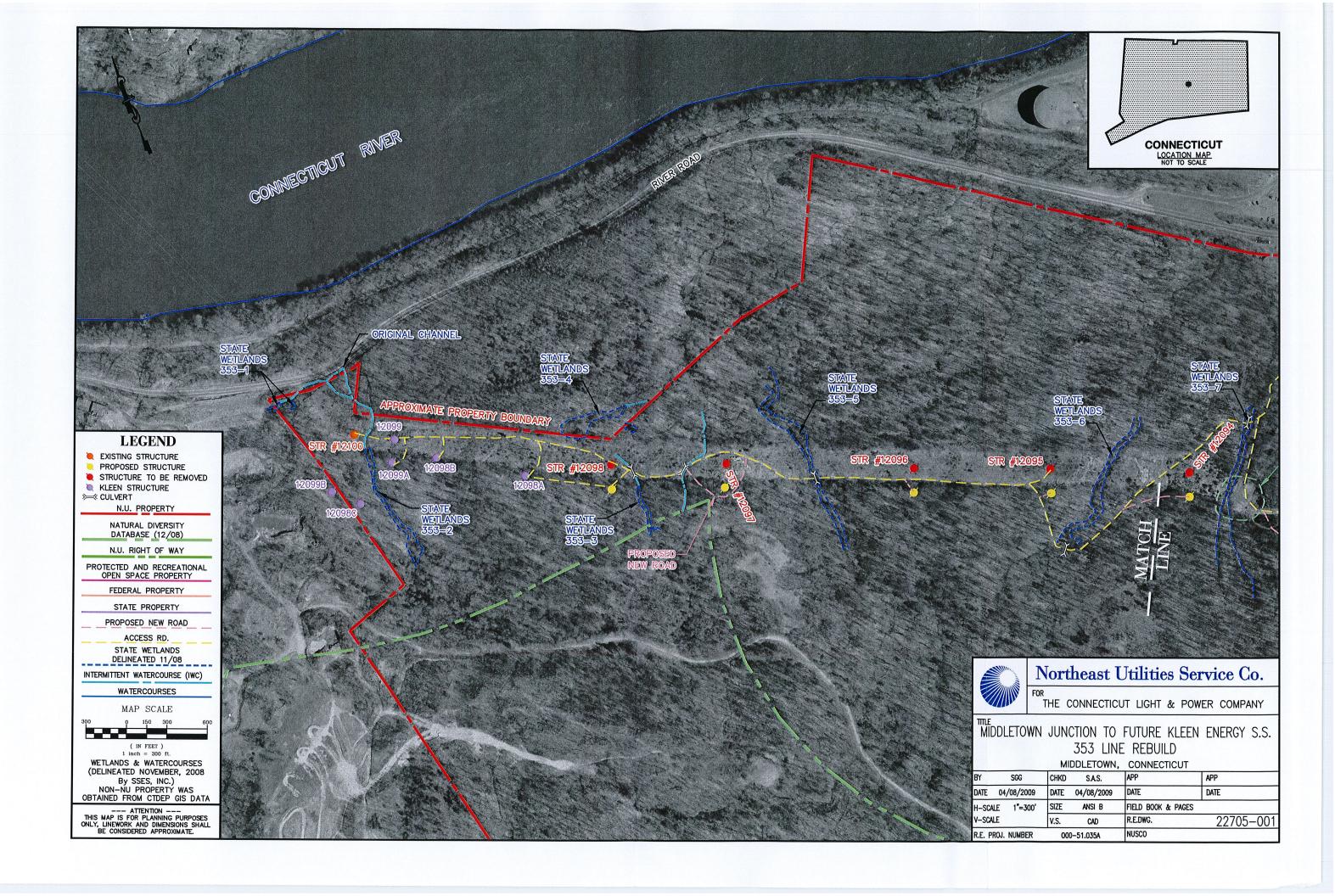
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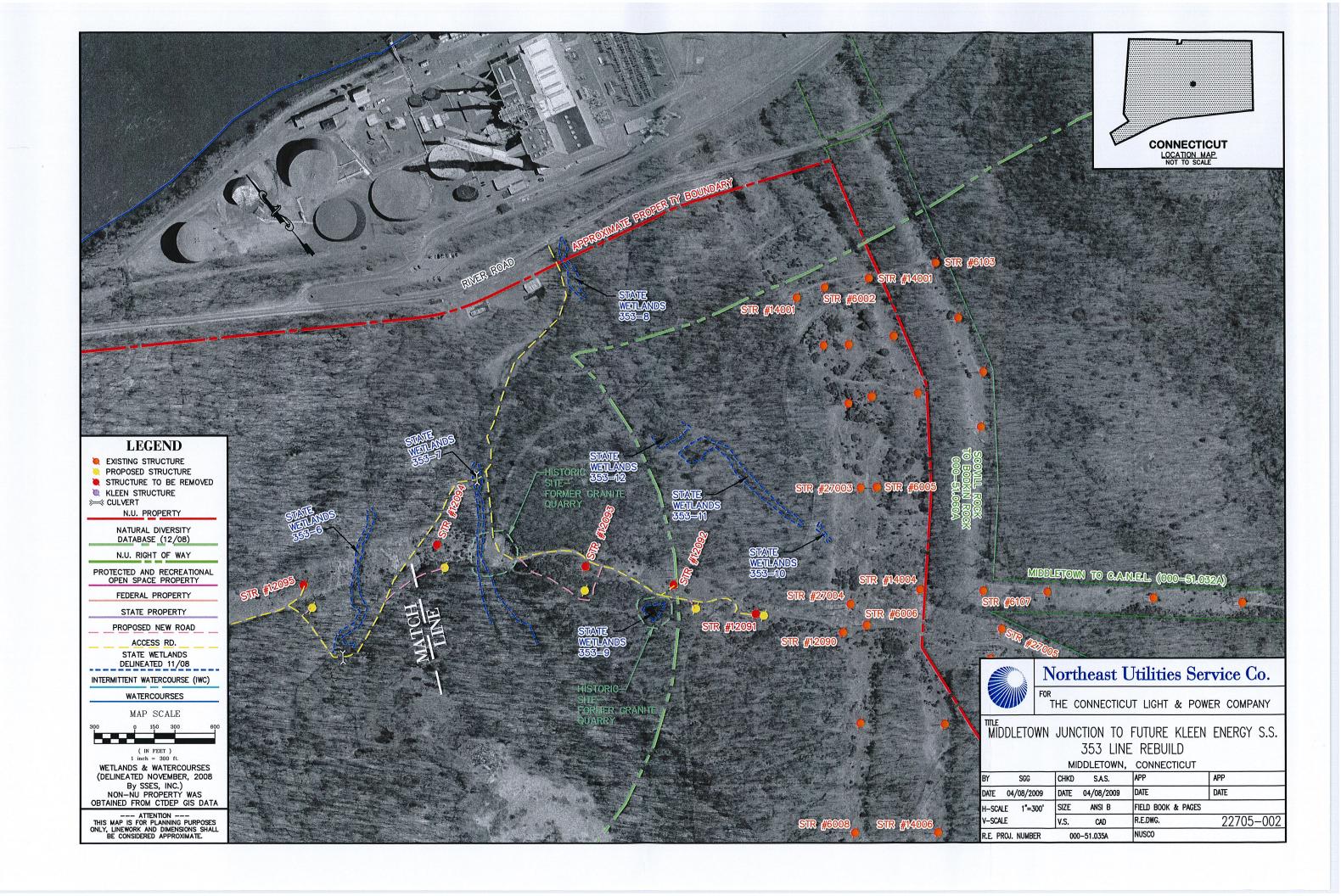
**LEGEND** 

EXISTING TRANSMISSION ROW

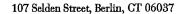
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Northeast Utilities Service Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5000

Susan Provost
Transmission Siting and Permitting
Tel: (860) 665-2673 - Fax: (860) 665-6933
provosm@nu.com

September 8, 2008

Natural Diversity Data Base/Data Request Environmental & Geographic Information Center Ms. Dawn McKay Connecticut Department of Environmental Protection 79 Elm Street Hartford, CT 06106-5127

Re: Proposed Middletown Junction to the Connecticut River Rebuild in Middletown, CT

Dear Ms. McKay

The Connecticut Light and Power Company (CL&P) is proposing to rebuild an existing 345-kilovolt ("kV") transmission line between the Kleen Energy generation plant in Middletown, Connecticut and CL&P's Middletown Junction (the "Project"). The new higher capacity 0.76 mile rebuild will be constructed on CL&P-owned property, just 85 feet to the south of the existing line. The proposed Project requires that CL&P file a Petition with the Connecticut Siting Council for a Declaratory Ruling of "No Substantial Adverse Environmental Effects."

CL&P plans to use existing access roads during Project construction. These roads may require re-grading and vegetation removal. In addition, CL&P will expand the right-of-way 85 feet to the south, it will build construction pads at each new structure location to assemble and erect each structure and will extend access from the existing road to each new structure. All of these activities will necessitate additional vegetative removal. The existing 345-kV transmission line will be removed after it has been de-energized.

CL&P has reviewed the Natural Diversity Data Base's (NDDB) June 2008 GIS layer of "State and Federal Listed Species and Natural Communities" and found two mapped areas within CL&P's right-of-way. The attached map shows the Project area and the most recent NDDB layer on 7.5 minute series USGS quadrangles (67 and 68). Additionally, I have attached a completed NDDB Review Request Form.

On behalf of CL&P, I am requesting a CT Department of Environmental Protection review of the above referenced CL&P property for the presence of any state or federally listed Endangered, Threatened, or Special Concern species. Should you have any questions, I may be reached at (860) 665-2673 or via e-mail at <a href="mailto:provosm@nu.com">provosm@nu.com</a>. Thank you for your attention to this matter.

Singerely,

usan Provost, Associate Scientist

cc: B. Peters/NU

Attachments



# STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Natural Resources Division of Wildlife 79 Elm Street, 6th Floor Hartford, CT 06106 Natural Diversity Data Base



September 23, 2008

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Ms. Susan Provost Northeast Utilities Service Company **PO Box 270** Hartford, CT 06141

RE: Proposed plan to de-energize existing 345-kv line and rebuild a higher capacity 345-kv transmission line from Middletown junction to the CT River in Middletown Connecticut

Dear Ms. Provost:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed plan to de-energize existing 345-kv line and rebuild a higher capacity 345-kv transmission line from Middletown junction to the CT River in Middletown Connecticut. According to our information, there are records for State Special Concern Terrapene carolina carolina (eastern box turtle) from the vicinity of this project site. I have sent your letter to Julie Victoria (DEP-Wildlife; 860-642-7239) for further review. She will write to you directly with her comments.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Dawn M. McKay

Dawn M. McKay
Biologist/Environmental Analyst

1. moka

Cc: Julie Victoria, NDDB#16403

Marie Control

DMM/ss

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### STATE OF CONNECTICUT

#### DEPARTMENT OF ENVIRONMENTAL PROTECTION

FRANKLIN WILDLIFE MANAGEMENT AREA

391 ROUTE 32 NORTH FRANKLIN, CT 06254

TELEPHONE: (860) 642-7239

September 25, 2008

Ms. Susan Provost
Northeast Utilities Service Co.
P. O. Box 70
Hartford, CT 06141

re: proposed transmission line rebuilding from Middletown junction to the CT River, Middletown

Dear Ms. Provost:

Your request was forwarded to me on 9/24/08 from Dawn McKay of the Department of Environmental Protection's (DEP) Natural Diversity Data Base. Their records indicate that a state species of special concern; Eastern Box Turtle (*Terrapene carolina*) occurs in the vicinity of your project.

Eastern box turtles require old field and deciduous forest habitats, which can include power lines and logged woodlands. They are often found near small streams and ponds, the adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year.

If Eastern box turtle habitat is going to be impacted by this proposed project, the Wildlife Division recommends that a herpetologist familiar with the habitat requirements of this species conduct surveys between April and September to see if they are present. A report summarizing the results of such surveys should include habitat descriptions, reptile species list and a statement/resume giving the herpetologist' qualifications. The DEP doesn't maintain a list of qualified herpetologists. A DEP Wildlife Division permit may be required by the herpetologist to conduct survey work, you should ask if your herpetologist has one. The results of this investigation can be forwarded to the Wildlife Division and, after evaluation, recommendations for additional surveys, if any, will be made.

Standard protocols for the protection of wetlands should be followed and maintained during the course of the project. Additionally, all silt fencing should be removed after soils are stable so that reptile and amphibian movement between uplands and wetlands is not restricted.

Please be advised that the Wildlife Division has not made a field inspection of the project nor have we seen detailed timetables for work to be done. Consultation with the Wildlife Division should not be substituted for site-specific surveys that may be required for environmental assessments. The time of year when this work will take place will affect these species if they are present on the site when the work is scheduled. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. If the proposed project has not been initiated within 6 months of this review, contact the NDDB for an updated review. If you have any additional questions, please feel free to contact me at <a href="mailto:Julie.Victoria@ct.gov">Julie.Victoria@ct.gov</a>, please reference the NDDB # at the bottom of this letter when you e-mail or write. Thank you for the opportunity to comment.

Sincerely,

Julie Victoria Wildlife Biologist

Franklin Swamp Wildlife Management Area

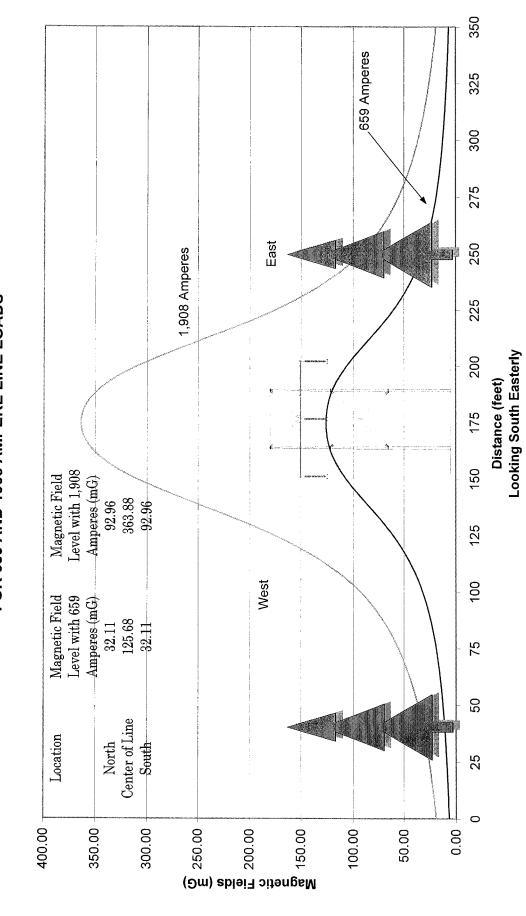
391 Route 32

N. Franklin, CT 06254

cc: NDDB - 16403



Attachment D: MAGNETIC FIELDS OF THE KLEEN ENERGY TO MIDDLETOWN JUNCTION 345-KV LINE SECTION FOR 659 AND 1908 AMPERE LINE LOADS



ATTACHMENT E



**Historic Preservation** 

and Museum Division

One Constitution Plaza

Second Floor Hartford, Connecticut

860.256.2800 860.256.2763 (f)

06103

#### **Connecticut Commission on Culture & Tourism**

November 24, 2008

Ms. Susan Provost Transmission Siting and Permitting Northeast Utilities Service Company PO Box 270 Hartford, CT 06141-0270

Subject: Middletown Junction to Connecticut River Rebuild

Middletown, CT

Dear Ms. Provost:

The State Historic Preservation Office has reviewed the above-named project. This office notes that the project area possesses moderate to high sensitivity for prehistoric and historic archaeological resources. Therefore, we recommend that a professional reconnaissance survey be undertaken to identify and evaluate archaeological resources which may exist within proposed project limits, including, equipment storage and associated work areas. All archaeological studies must be undertaken in accordance with our *Environmental Review Primer for Connecticut's Archaeological Resources*. A list of archaeological consultants is attached for your information.

No ground disturbance or construction-related activities should be initiated until this office has had an opportunity to review and comment upon the recommended archaeological survey report.

We anticipate working with all interested parties in the expeditious furtherance of the proposed undertaking as well as in the professional management of Connecticut's archaeological heritage.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

David Bahlman

Deputy State Historic Preservation Officer

cc: Dr. Nicholas Bellantoni/OSA

CONNECTICUT

www.cultureandtourism.org



Historic Preservation and Museum Division

One Constitution Plaza Second Floor Hartford, Connecticut 106103

860.256.2800 860.256.2763 (f) December 31, 2008

Ms. Catherine M. Labadia Heritage Consultants LLC 877 Main Street Newington, CT 06111

Subject: Middletown Junction to Connecticut River Rebuild

Middletown, CT

Dear Ms. Labadia:

The State Historic Preservation Office has reviewed the end-of-fieldwork management summary prepared by Heritage Consultants LLC concerning the above-named project. In the opinion of the State Historic Preservation Office, the archival and archaeological methodologies employed by Heritage Consultants LLC are consistent with our *Environmental Review Primer for Connecticut's Archaeological Resources*.

The State Historic Preservation Office concurs that no additional archaeological investigations appear warranted with respect to the proposed undertaking. This office believes that the proposed undertaking will have no effect upon Connecticut's archaeological heritage. This comment is conditional upon the following:

- All construction-related activities, including temporary access roads and staging areas, shall avoid physical impacts to the two historic stone quarries identified by Heritage Consultants LLC.
- Northeast Utilities Service Company and/or Heritage Consultants LLC shall submit a final reconnaissance survey report (two copies), including unbound archaeological inventory forms for the stone quarries, to our professional staff for technical analysis.

This office recommends that Heritage Consultants LLC consult with the Office of State Archaeology at the University of Connecticut (Storrs) concerning the professional transferal of all field notes, photographs, and artifactual materials generated by the archaeological investigations.

The State Historic Preservation Office appreciates the cooperation of all interested parties concerning the professional management of Connecticut's archaeological resources.

CONNECTION

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Middletown Junction to Connecticut River Rebuild Middletow, CT Page 2

This comment updates and supersedes all previous correspondence regarding the proposed project.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

David Bahlman

Deputy State Historic Preservation Officer

cc: Dr. Nicholas Bellantoni/OSA Ms. Susan Provost/NUSC